

BRORSEN'S Second Comet.

M. Brorsen, of Kiel, discovered a telescopic comet in *Pegasus* on April 30th, at 13^h M.T. : its approximate place at 14^h 30^m was,

R.A. 319° 36'

Dec. +22° 22'

He describes it as a largish, diffuse, round bright nebula, without tail, in which no nucleus is discernible.

*OBSERVATIONS.**ALTONA.*

(M. Petersen.)

	Altona M.T.	R.A.	Dec.
	^h ^m ^s	[°] ['] ^{''}	[°] ['] ^{''}
May 2	11 48 1	324 26 39	+ 32 4 33
3	12 3 43.7	328 0 25.4	
	12 12 13.6		+ 38 10 36.7

M. Petersen thought that a nucleus was perceptible at favourable moments.

HAMBURG.

(M. Rumker.)

	Hamburg M.T.	R.A.	Dec.
	^h ^m ^s	[°] ['] ^{''}	[°] ['] ^{''}
May 2	12 28 16.7	324 32 6.0	+ 32 14 5.1
3	11 39 16.4	327 56 40.0	38 2 3.3

Ancient Eclipses of the Sun, computed by M. Rumker.

M. Heiss, of Cologne, has calculated the particulars of two eclipses during the Peloponnesian war which are mentioned in history, viz. one on August 3, 431 A.C., and another on March 21, 424 A.C.

M. Rumker has given the particulars of four more, in the hope that they may have been noticed by some ancient writer :—

A.C.	Beginning.	Middle.	End.	Digits eclipsed.	Place of Observ.
	^h ^m ^s	^h ^m ^s	^h ^m ^s		
418 June 11.	11 43 4 A.M.	0 28 9 P.M.	1 14 5 P.M.	1.9	Athens.
416 Oct. 14.	4 33 0 A.M.	5 2 7 A.M.	5 32 5 A.M.	1.4	Syracuse.
411 Jan. 27.	10 7 2 A.M.	10 59 5 A.M.	11 52 0 A.M.	2.9	Athens.
409 June 1.	1 49 5 P.M.	3 7 6 P.M.	4 14 0 P.M.	7.5	Athens.

Eclipses of the sun visible at Athens, occurred Nov. 4, 426 A.C. and Oct. 25, 417 A.C.

The lunar eclipses visible at Athens during the war are,

A.C.	A.C.	A.C.
428 June 17	421 Feb. 2	413 Aug. 27
425 April 15	421 July 28	407 Oct. 21
425 Oct. 9	418 Nov. 21	406 April 15

On the Diminution of Brightness in β Ursæ Minoris.

Extract of a letter from Sir J. F. W. Herschel to the President :—

“ Allow me to call your attention to the remarkable diminution which has taken place in the apparent brightness of β *Ursæ Minoris*.

ris since 1840 and 1841. In the course of a series of observations which I carried on in those years, on the comparative brightness of the stars, the star in question was always ranked above *Polaris*, and far above β *Ursæ Majoris* and α *Coronæ*. To the last-named star it is still superior, and perhaps a little (but very little) to the former; but with *Polaris* it will bear no comparison. That the change is in β , and not in *Polaris*, is evident. The latter retains its rank; it remains (as I have always observed it) much inferior to α , ϵ , and η *Ursæ Majoris*; but when compared with ζ , there is some doubt. I incline to place it a little higher in the scale than that star; and I find on consulting my lists, that on the 30th April, 1840, it was judged then also superior to ζ , but that on the next night this order was reversed; proving that then, as now, a difficulty existed in deciding the relative claims of the two stars to superiority.

β *Ursæ Minoris* must therefore clearly claim a place among the slowly variable stars, a class of especial interest; and I hope this notice may suffice to induce some of our astronomical fraternity to keep an eye on its future progress."

On the Double Stars, δ *Cygni*, γ *Leonis*, &c. By J. R. Hind, Esq.

In 1783 Sir W. Herschel estimated the distance of the stars of δ *Cygni* to be nearly $2''\cdot5$; in 1802 and 1804 he could not see the companion at all. It was rediscovered in 1826 by M. Struve, who found the distance to be nearly $2''$, whence he conjectured the periodic time was about 40 years. This guess was, however, contradicted by subsequent observations; and M. Struve now accounts for the anomalous disappearance by supposing the light of the smaller star to be variable. Mr. Hind has computed two orbits which satisfy the observations pretty well, and which nearly agree, except in the node and inclination. The method of calculation is that described by Sir J. F. W. Herschel in the *Memoirs of the Astronomical Society*, Vol. V. p. 171, &c. Though these elements are only approximate, yet they give a general idea of the form of the orbit. The periodic time is about 180 years.

By the same mode of calculation, Mr. Hind has obtained a *first* approximation to the orbit of γ *Leonis*, with a periodic time of nearly 300 years. As the angle of position has only altered 24° in 63 years, the result is rather uncertain.

Mr. Hind points out several double stars which are promising subjects for investigation; ξ *Scorpii*, 12 *Lyncis*, ζ *Aquarii*, 36 *Andromedæ*, 85 *Persei*, η *Tauri*, ν^1 *Cancræ*, σ^2 *Ursæ Majoris*, 157 *Lyncis*, 49 *Serpentis*, \circ *Draconis*, and Σ 460, 520, 1126, 1457, 1757, 1819, 2107, 2120, 2438. He conceives that ξ *Scorpii* *probably* revolves in a very elongated ellipse.